ANTIMICROBIAL ACTIVITIES OF MALAYSIAN MEDICINAL PLANTS

AMIRAH RAIHAN BINTI ABDUL RA'OF

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This Final Year Project entitled "**Antimicrobial Activities of Malaysian Medicinal Plants**" was submitted by Amirah Raihan Binti Abdul Ra'of, in Partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Applied Chemistry in the Faculty of Applied Sciences and was approved by

Dr. Norizan Ahmat
Supervisor
Faculty of Applied Sciences
Universiti Teknologi MARA

Dr. Syarifah Aminah Syed Mohammad
Co-Supervisor
Faculty of Applied Sciences
Universiti Teknologi MARA

Miss Sabrina Binti M Yahaya
Project Coordinator
B. Sc (Hons) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA

Dr. Yusairie Bin Mohd
Head of Programme
B.Sc (Hons) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA

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ABSTRACT

ANTIMICROBIAL ACTIVITIES OF MALAYSIAN MEDICINAL PLANTS

The aim of this study is to determine the antimicrobial activity of the six plants extracts from Rhizomes of *Curcuma longa* (turmeric/kunyit), leaves of *Phyllanthus acidus* (Malay gooseberry/cermai), leaves of *Murraya paniculata* (orange jessamine/kemuning), leaves of *Cassia alata* (candle bush/gelenggang), leaves of *Psidium gujava* (guava/jambu batu), leaves of *Centella asiatica* (Indian pennywort/pegaga). Traditionally, these plants play important role in the domestic uses such as treating skin infections such itching, ringworm, and acne. Antimicrobial activities measured by serial dilution and disc diffusion assay. The antimicrobial activities of these plant extracts were tested using microorganism such *Staphylococus aureus, Streptococus pyogenes, Esherichia coli, Pseudomonas aureginosa* and *Canadida albicans* (yeast). From all these six plants, the most effective plants to kill microorganisms tested is *Cassia alata.* The antimicrobial activity of *Cassia alata* ethanol extract on *Pseudomonas aeruginosa* and *Streptococus pyogenes* were detected.

ABSTRAK

AKTIVITI ANTIMIKROORGANISMA KE ATAS TUMBUHAN UBATAN DI MALAYSIA

Objektif kajian ini adalah untuk menentukan aktiviti antimikrob di dalam enam ekstrak pokok iaitu kunyit (diambil rizom) dan lima lagi ekstrak daun cermai, kemuning, gelenggang, jambu batu dan pegaga. Secara tradisinya, tumbuhan ini memainkan peranan penting dalam mengubati penyakit kulit seperti kurap, gatal-gatal dan jerawat. Aktiviti antimicrob diukur dengan menggunakan kaedah siri penyerapan dan pengujian cakera. Aktiviti antimkroorganisma ekstrak tumbuhan ini diuji menggunakan mikroorganisma *Staphylococus aureus, Streptococus pyogenes, Esherichia coli, Pseudomonas aureginosa, Candida albicans(yeast).* Keputusan menunjukkan daun gelenggang mempunyai potensi antimikrob paling tinggi dimana mikroorganisma yang dirawat ialah *Pseudomonas aureginosa* dan *Streptococus pyogenes.*